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State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

May 28, 2014

Chris Kaiser
Kennecott Utah Copper LLC
4700 Daybreak Parkway
South Jordan, Utah 84095

Subject: Second Review of Response to Division Directive, Kennecott Barneys Canyon Mining, Barneys Canyon Mine, M/035/0009, Salt Lake County, Utah

Dear Mr. Kaiser:

The Division of Oil, Gas and Mining has completed a review of the response to comments received on May 15, 2014. The attached comments need to be addressed.

The Division would like clean up to commence as soon as possible. In the attached review, comments in normal font are from the Division's review dated April 22, 2014, comment in italics contain discussion of the responses, and comments in bold state specific remaining requirements. Please submit your response to the remaining comments shown in bold on the attached review comments. The following comments need to be addressed prior to clean up commencing: #2, #3, #13, #16 and #23.

The approval or acceptance of this response to the Division Directive does not relieve Kennecott Barneys Canyon Mining from its responsibility to comply with the applicable statutes, rules, regulations, and ordinances of all local, state and federal agencies with jurisdiction over any aspect of the mining operations.

The Division will suspend further review of the response to the Division Directive until your response to this letter is received. Please contact Leslie Heppler at 801-538-5257 or me at 801-538-5261 if you have questions about this review. Thank you for your cooperation in completing this permitting action.

Sincerely,

Paul B. Baker
Minerals Program Manager

PBB: lah: eb

Attachment: Review

cc: Doug Bacon, Hans Millican, Brian Hamos, Dan Hall, and David Allison, DEQ (dbacon@utah.gov, hmillican@utah.gov, bhamos@utah.gov, dhall@utah.gov, dallison@utah.gov)
Kerri Fiedler, EPA (fiedler.kerri@epa.gov)

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Chris Kaiser
M/035/0009
May 28, 2014

**Initial Review of Response to Division Directive
Kennecott Barneys Canyon Mining
Barneys Canyon Mine
M/035/0009
May 28, 2014**

General Comments:

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
Prior #1		The Division requires that Kennecott Barneys Canyon implement a planned preshift inspection of the leach pads, until such time as erosional issues have been satisfactorily addressed. Please submit an amendment to the Notice of Intention with a proposed schedule, as per rules R647-4-107.3 and 107.4. This is an ongoing function with an ongoing submittal	lah	

R647-4-105 - Maps, Drawings & Photographs

105.3 - Drawings or Cross Sections (slopes, roads, pads, etc.)

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
Prior #2	Detail sheet omission	Provide a detail sheet with sections illustrating the construction of the required channel, including dimensions, riprap sizing, filter bed, and construction methods. <i>The response (Attachment 4) shows the plan view of the stream channel as-built with no dimensions other than spot elevations and no section drawings. In subsequent verbal discussions, the operator stated they would restore the channels to the pre-existing dimensions and materials. Since the channels were constructed by, and are the property of, West Jordan City, the West Jordan City Engineer, or other appropriate City representative, should sign off on the final product during a Substantial Completion Inspection. The operator should commit to conducting such an inspection in writing in the Cleanup Plan.</i> This comment needs to be addressed prior to construction clean up.	mpb	

R647-4-106 - Operation Plan

106.8 - Depth to groundwater, extent of overburden, geologic setting

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
Prior #3	Omission	<p>Please provide data from other groundwater wells in the area. Include geologic log.</p> <p><i>Please provide arsenic data to attachment #6b.</i></p> <p>This comment needs to be addressed prior to construction clean up.</p>	lah	

R647-4-109 - Impact Assessment

109.1 – Projected impacts to surface & groundwater systems

Comment #	Sheet/Page/Map/Table #	Comments	Initials	Review Action
Prior #9	Omission	<p>Propose a ground water monitoring location in segment 3. Include specifics of the well construction details and monitoring protocol. Additional monitoring locations might be warranted dependent upon results.</p> <p><i>Based on email communication from Brian Vinton, only a shallow ground water monitoring hole is warranted at this time. It would be a corporate decision by RTKC to place a deeper nested ground water OSP, unless future analytical results show otherwise. Please include the email verbiage of the subsurface geology discussion and the verbiage from attachment #1(comment 9) in the text of the response submittal in Attachment #8. In summary, consolidate all geology under Attachment #8.</i></p> <p><i>Ground water monitoring is not required by R647, but as per R647-4-107-2 "If natural channels are to be affected by mining operation, then the operator shall take appropriate measures to avoid or minimize environmental damage". The Division recommends installing a shallow ground water monitoring well.</i></p> <p>This comment warrants further discussion, but it is not necessary for clean up construction to begin.</p>	Lah	
Prior #13	Map 5-2	The haul route needs to continue up to BC-03 (see comment 6 above).	lah	
	Map 2-2	<p><i>Either remove the access point to BC-05, or add a note to the map as per comment and response # 6 above</i></p> <p>This comment needs to be addressed prior to construction clean up.</p>		

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
Prior #16	Pg. 5-5 and Figure 5-1 (omission)	<p>A temporary sediment basin should be installed at the downstream end of Segment 1 for the duration of clean-up. This basin should be designed for a minimum of a 2-year, 24-hour event, or 3,600 cubic feet/acre of contributing area (EPA 2012 Construction General Permit requirements). The watershed for this basin should include all contributing areas between this basin and the basin to be constructed west of the railroad grade.</p> <p><i>In lieu of sediment ponds, the operator has opted to use silt fence cross barriers and wattles around the storm drain at the downstream end of Segment 1. Figure E-1 is not clear as to whether the wattles will be placed around all sides of the storm drain. Please ensure that the entire storm drain is surrounded on all sides by properly installed wattles. This option is acceptable as long as they are inspected and maintained as required under the SWPPP.</i></p> <p>This comment needs to be addressed prior to construction clean up.</p>	mpb	

109.4 – Projected impacts on slope stability, erosion control, air quality, public health and safety

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
Prior #18	Addition to NOI	<p>Provide an amendment to the Notice of Intention (NOI) re-evaluating the projected impacts of the Barneys Canyon mine on erosion control, air quality, and public health and safety.</p> <p>This comment does not need to be addressed prior to construction clean up, but is to be submitted by August 15, 2014.</p>	lah	

109.5 - Actions to mitigate any impacts

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
Prior #19	Addition to NOI	<p>Provide an amendment to the NOI on Kennecott Barneys Canyon's actions to mitigate sediment and deleterious materials releases which might impact the environment.</p> <p>This comment does not need to be addressed prior to construction clean up, but is to be submitted by August 15, 2014.</p>	lah	

110.5 - Revegetation planting program

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
Prior #21	Omission	<p>Provide a seed mix of grasses and forbs and application rate to be planted after excavation and grading.</p> <p><i>See below.</i></p>	mpb	

Comment #	Sheet/Page/ Map/Table #	Comments	Initials	Review Action
Prior #22	Omission	Provide a brief description of revegetation methods, including, but not limited to, surface roughening, seed application method, and any post-seeding activity such as harrowing to cover seed with soil. <i>See below.</i>	mpb	
Prior #23	Omission	Revegetation program should address reseeding the entire disturbed area, including newly riprapped channels. <i>Responses to Comments 21, 22 & 23 stated "Restoration guidelines, obtained from West Jordan City, have been added to the cleanup plan in section 2.3." These guidelines are actually located in section 2.5, incorporating them into the plan by reference. As with the channel construction noted in Comment #2, West Jordan City should sign off on the final product during a Substantial Completion Inspection.</i> This comment needs to be addressed prior to construction clean up.	mpb	